

WELL SUMMARY

page 1 of 3Location ID: ST-3-586 Field Representative(s): D. MenzieDate Started: 03/24/92 Date Completed: 04/10/92Northing: 230882.58 Easting: 400613.87Brass Cap: 4494.59 Outer Casing: 4495.67 Inner Casing: 4496.06Drilling Method: Mud/Air Foam Rotary Drilling Contractor: Larjon Drilling Co.Driller: J. GowerTotal Depth Borehole: 615' Total Depth Well Casing: 601.51'Total Depth Surface Casing: 79.5'Diameter Well Casing: 4" Diameter Surface Casing: 10"Length of Bottom Blank: 5.72'Type of Screen: extra strength 0.02 slotScreen Interval: 585.77' to 595.79'Water First Detected: 490' Water Level Open Borehole: 425.32' G.S.
(04/06/92)Water Level Cased Borehole: 426.68' T.O.C. (04/06/92)Quik-Foam Use: 4 gallonsEstimated Water Use: 7,100 gallonsWell Casing:

4in x 3ft SCD 40 PVC:

4in x 5ft SCD 40 PVC:

4in x 10ft SCD 40 PVC:

4in x 20ft SCD 40 PVC:

Total SCD 40 PVC pipe:

custom SS centralizers:

4"x2' SS locking riser: 1.73'

4" SS locking cap:

4" SS female cap: 0.28'

Four adaptors: 1.47'

4in x 3ft SCD 5 SS pipe:

4in x 5ft SCD 5 SS pipe:

4in x 10ft SCD 5 SS pipe:

4in x 20ft SCD 5 SS pipe: 399.80'

Total SCD 5 SS pipe: 399.80'

4in x 5ft SCD 10 SS pipe: 10.05'

4in x 10ft SCD 10 SS pipe: 179.89'

4in x 20ft SCD 10 SS pipe:

Total SCD 10 SS pipe: 189.94'

Well Completion:

100# bags 16/40 sand:	4	bags
100# bags 8/20 sand:	8	bags
100# bags #3 sand:	63	bags
94# bags cement:	172	bags
50# bentonite powder:	17	bags
Benseal:	1	bag

Surface Casing:

94# bags cement:	42	bags
50# bags bentonite powder:	4	bags

Pertinent Field Notes:

03/23/92	Finish steam cleaning and mobilizing all mud rotary equipment to site. Lay plastic under rig and set up to drill. - Menzie
03/24/92	Drill mud rotary 0'-82' with 12 1/4" tricone mill tooth bit. Ream pilot hole to 16" from 0'-40'. - Menzie
03/25/92	Finish reaming hole from 40'-80'. Circulate to clean up cuttings and thin mud. - Menzie
03/26/92	Run 79.5' of 10" steel surface casing and pump grout to surface. - Menzie
03/27/92	Demobilize mud rotary equipment. Steam clean and mobilize air/foam rotary equipment. - Menzie
03/30/92	Drill air/foam rotary 80'-290' with 9 7/8" button bit. - Menzie
03/31/92	Drill air/foam rotary 290'-565' with 9 7/8" button bit. - Menzie
04/01/92	Drill air/foam rotary 565'-615' with 9 7/8" button bit. Demobilize air/foam rotary equipment. - Menzie

- 04/02/92 Run full suite of geophysical logs. Steam clean and mobilize completion materials and equipment. Pump bottom plug from 601.5'-608'. Hang 80' of 4" SS casing in surface casing. - Menzie
- 04/03/92 Finish installing 4" SS casing. Total casing including riser and screen is 603.24'. Screen set at 585.77'-595.79'. Stick up is 1.73'. Install gravel pack and pump upper plug from 571.17'-576.42'. - Menzie
- 04/06/92 Pour filler sand above upper plug to 413' and pour first load of grout. - Menzie
- 04/07/92 Pour second load of grout. - Menzie
- 04/08/92 Measure water level at 426.46' T.O.C. Surge and bail well for initial development. Install 1½ HP submersible pump at 525' below G.S. Pump well for development. - Menzie
- 04/09/92 Pump well for development (total discharge ≈ 1,100 gallons). Turbidity consistently less than 5 NTUs'. Other parameters (pH, Temp., Cond.) stable. Well is developed; pull pump. - Menzie
- 04/10/92 Pour 3rd load of grout and install protective casing. - Menzie
- 04/13/92 Measure post-development water level at 426.62' T.O.C. - Menzie